

Section III: Current Status of the MMI Fund

As of the end of FY 2004, the MMI Fund has an estimated economic value of \$21.977 billion and a capital ratio of 5.53 percent. Both figures reflect decreases from FY 2003, due to the change of in the Fund's safety and soundness. In this section, a more detailed analysis of the MMI Fund's current status is presented. The analysis examines the Fund's current FY 2004 situation and the projected future performance of the FY 2005 through FY 2011 books of business. This section includes a description of the basic components of the Fund's economic value and an explanation of the historical and estimated claim and prepayment rates that served as the foundation of estimating future performance.

A. Estimating the Current Economic Value of the MMI Fund

According to the NAHA, the economic value (or economic net worth) of the Fund is defined as the "cash available to the Fund, plus the net present value of all future cash inflows and outflows expected to result from the outstanding mortgages in the Fund." We base our estimate of this value on the level of capital resources as stated on the MMI Fund FY 2003 balance sheet plus the cash received from investments, the net income of the mortgage insurance policies, and the present value of expected future cash flows of the existing loan portfolio as estimated from our financial models.

The MMI Fund assets comprise cash, investments, properties and mortgages, and other assets and receivables. Capital resources are the total assets net of the liabilities of the Fund. Due to the accelerated schedule of the Actuarial Review, the actual amount of the capital as of the end of FY 2004 was not available at the time this Review was prepared. We had to project the end of FY 2004 capital resources based on the capital resources at the beginning of the year with an estimate of the net cash income occurring during the year.

The present value of expected future cash flows is calculated by a financial model that uses the most current information available to estimate cash flows, including the present value of the expected cash inflows (upfront premiums, annual premiums and investment income) and outflows (claim payments, premium refunds, administrative expenses and distributive shares).² The cash flows included in these calculations are those from the origination year to the year of maturity, *e.g.*, 30 years from the first policy year for 30-year mortgages. The steps in calculating the current economic value and capital ratio of the MMI Fund are tabulated as Exhibit III-1.

² The administrative expense was discontinued since the FY 2002 Actuarial Review according to the federal credit reform requirement. The distributive share has been suspended since 1990. There is no indication that it would be resumed in the foreseeable future.

1. Capital Resources

Capital resources are the net assets of the Fund that, if necessary, could be converted into cash to meet the Fund's obligations. It is computed by subtracting total liabilities from total assets. These assets consist of cash, investments, properties and mortgages, other assets and net of miscellaneous receivables and payables. Exhibit III-1 reports the estimate of MMI Fund's economic value at the end of FY 2004 at \$21.977 billion.

Exhibit III-1

Estimates of MMI Fund Economic Value as End of FY 2004		
(\$ Millions)		
Item	End of FY 2003^a	End of FY 2004
Cash	\$4,589	
Investments	23,975	
Properties and Mortgages	2,205	
Other Assets and Receivables	283	
Total Assets	31,052	
Liabilities	8,996	
Total Capital Resources	22,056	
Investment Interest		348 ^b
Net Insurance Income in FY 2004		389
Total Capital Resources		22,794
PV of Future Cash Flows		(817)
Economic Value	22,736 ^c	21,977
Unamortized Insurance-In-Force	436,401 ^c	397,285
Current Capital Ratio	5.21% ^c	5.53%
Amortized Insurance-In-Force		372,613
Current Capital Ratio with Amortized Insurance-In-Force		5.90%

^aSource: Audited Financial Statements for FY 2003.

^bEstimated by assuming the total capital resources as of the end of FY 2003 earns an investment return equal to 1.58 percent during FY 2004.

^cFrom the FY 2003 Actuarial Review.

The next step in estimating the capital resources as of the end of FY 2004 is to estimate the cash flows that are generated by the MMI Fund portfolio. Two sources of cash flows are estimated: (1) the investment interest earned from the capital resources at the beginning of FY 2004; and (2) the net cash income from the mortgage insurance policies. The investment interest is estimated to be \$348 million during FY 2004, assuming the capital resources realize a return equal to 1.58 percent.

Based on the econometric models and economic forecast, we estimated the cash flows that were generated by the FY 1975 to FY 2004 books of business during FY 2004. These cash flows and any interest earned from reinvestment become part of the total assets of the Fund. Exhibit III-2 shows the results of this analysis. The present value of the net cash flow received during FY 2004 was calculated as \$389 million.

Exhibit III-2

Net Cash Flow During FY 2004 by Origination Fiscal Year and Mortgage Types ^a (\$ Millions)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
1975	0						0
1976	0						0
1977	0						0
1978	1						1
1979	1						1
1980	1						1
1981	0						0
1982	0						0
1983	0						0
1984	0						0
1985	-1		0	0			-1
1986	-3		0	0			-4
1987	-5		0	-1		0	-6
1988	-3		0	0		0	-4
1989	-4	0	0	0	0		-5
1990	-6	0	0	0	0		-6
1991	-7	0	0	0	0	0	-7
1992	-9	0	-1	-1	0	0	-10
1993	-8	0	-1	-5	0	0	-14
1994	-10	0	-1	-7	0	0	-19
1995	-12	0	-2	0	0	0	-14
1996	-34	0	-6	-3	0	0	-43
1997	-42	0	-12	-1	0	0	-56
1998	-68	0	-9	-4	0	0	-82
1999	-143	-1	-6	-5	0	0	-156
2000	-179	0	-18	-2	0	0	-200
2001	-218	-1	-3	-17	0	0	-240

Net Cash Flow During FY 2004 by Origination Fiscal Year and Mortgage Types ^a (\$ Millions)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
2002	-226	-1	-6	-27	-1	-1	-262
2003	-26	-1	6	4	-3	2	-17
2004 ^b	799	17	67	514	54	79	1,530
Total	-202	12	7	446	48	78	389

^aSee Section IV for description of loans included in each loan type category

^bBased on forecasted volume and composition distribution between the second quarter of FY 2003 and the first quarter of FY 2004.

2. Present Value of Future Cash Flows

The present value of all future cash flows of the MMI Fund is also aggregated from separate estimates of the present value of each book of business and each major mortgage type. Exhibit III-3 shows the present values of future cash flows of major mortgage types from book years FY 1975 to FY 2004. These present values represent simulated cash flows during FY 2004 and future years. This exhibit is offered to facilitate comparison among books of business and mortgage types according to cash flows that have not yet been incurred as of end of FY 2004. It is reported in Exhibit III-3 that the total present value of future cash flow is -\$817 million dollars.

Exhibit III-3

Present Value of Future Cash Flows as the End of FY 2004 ^a by Origination Fiscal Year & Mortgage Type (\$ Millions)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
1975	0						0
1976	0						0
1977	1						1
1978	2						2
1979	3						3
1980	2						2
1981	1						1
1982	0						0
1983	2						2
1984	-1						-1
1985	-2		0	0			-2
1986	-6		0	0			-7

Present Value of Future Cash Flows as the End of FY 2004 ^a by Origination Fiscal Year & Mortgage Type (\$ Millions)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
1987	-9		0	-1		0	-10
1988	-6		0	0		0	-7
1989	-9	0	0	0	0		-9
1990	-12	0	0	0	0		-13
1991	-14	0	-1	0	0	0	-15
1992	-17	0	-3	-1	0	0	-21
1993	-21	0	-3	-9	0	-1	-34
1994	-23	0	-5	-14	0	-1	-43
1995	-24	0	-5	-1	0	0	-30
1996	-60	0	-14	-5	0	-1	-80
1997	-72	0	-29	-2	0	-1	-103
1998	-124	-1	-22	-10	0	-2	-158
1999	-255	-1	-21	-13	-1	-1	-292
2000	-272	-1	-55	-2	0	-1	-330
2001	-239	-2	-13	-5	-1	-2	-261
2002	-190	-3	-50	13	-4	-3	-237
2003	194	-5	-48	306	-13	0	434
2004	343	-2	-65	149	-1	-33	391
Total	-808	-15	-334	405	-20	-45	-817

^aBased on forecasted volume and composition distribution during the first two quarters.

The present values of future books discounted as of the end of each future fiscal year are tabulated in Exhibit III-4.

Exhibit III-4

Present Value of Future Book^a by Origination Year & Mortgage Type (in \$ Million)							
Fiscal Year	FRM 30	FRM 15	ARM	SR 30	SR 15	SR ARM	Total
2005	1,365	16	-14	264	22	12	1,666
2006	1,614	16	12	209	18	20	1,888
2007	1,777	16	24	142	13	18	1,989
2008	1,832	16	27	137	13	18	2,043
2009	1,853	16	26	139	13	18	2,065
2010	1,879	17	24	146	13	18	2,098
2011	1,918	17	20	154	14	17	2,140
Total	12,238	116	119	1,191	106	121	13,891

^aPresent values are estimated as of the end of each corresponding fiscal years.

3. Amortization of Current Books of Business

In order to calculate the MMI Fund's capital ratio, we need to also estimate the unamortized IIF, although it is instructive to consider the capital ratio based on amortized IIF, which is the basis the General Accounting Office (GAO) used when it estimated the capital ratio of the MMI Fund in the mid-1990's. At any given time, the dollar value that is actually at risk is the amortized IIF. Exhibit III-5 shows the volume of new mortgage originations, for all types of mortgages, the unamortized IIF estimated for the end of FY 2004, and the amortized IIF, which is also estimated for the end of FY 2004.

As Exhibit III-5 indicates, the FY 2004 book of business constitutes approximately 28 percent of the Fund's total amortized IIF. However, the largest portion of mortgage endorsements comes from the FY 2003 book. These two most recent books together represent about 54 percent of the total unamortized insurance in force of the current MMI Fund. The heavy concentration in these recent books of business implies that the claim rate of the MMI Fund could gradually increase during the coming years as these two books enter their peak claim years.

Exhibit III-5

Endorsements and Insurance-in-Force for All Mortgages As of End of FY 2004 (in \$ Millions)			
Book of Business ^a	Mortgage Endorsement	Unamortized Insurance in Force ^b	Amortized Insurance in Force ^b
1975	3,955	176	8
1976	5,569	303	38
1977	6,932	456	89
1978	9,627	647	176
1979	14,996	895	321
1980	14,216	485	205
1981	9,732	156	81
1982	6,894	30	19
1983	25,654	233	150
1984	15,696	475	334
1985	24,059	794	577
1986	57,728	3,323	2,339
1987	70,215	5,704	4,035
1988	37,425	2,392	1,809
1989	39,759	2,138	1,686
1990	47,123	2,482	1,944
1991	44,034	2,534	1,987
1992	44,922	3,801	2,983
1993	73,664	8,196	6,218
1994	79,537	11,409	8,828
1995	41,416	4,175	3,601
1996	61,563	6,734	5,866
1997	65,358	7,171	6,434
1998	88,453	14,207	12,897
1999	109,961	22,912	21,091
2000	86,734	12,215	11,581
2001	119,771	23,499	22,519
2002	128,768	44,777	43,211
2003	149,450	108,408	105,906
2004	113,565 ^c	106,561	105,681
Total	1,596,776	397,285	372,613

^aEnd of year insurance-in-force^bBased on March 31, 2004 data extract and model projected performance of outstanding loans during the last two quarters of fiscal year 2004^cEstimated by FHA

Exhibit III-6 shows the estimated capital ratios of the Fund using amortized IIF instead of the estimates of unamortized IIF used elsewhere in this report. If amortized IIF were substituted for unamortized IIF, the Fund's estimated capital ratios for FY 2004 and FY 2011 are 5.90 percent and 7.27 percent, respectively. We continue to use the unamortized IIF measure (as generally defined) in calculating the capital ratio elsewhere in this Review.

Exhibit III-6

Projected MMI Fund Performance for FYs 2004 to 2011^a (\$ Millions)						
Fiscal Year	Economic Value of the Fund	Capital Ratio (%)	Volume of New Endorsements	Amortized Insurance in Force	Economic Value of New Book of Business	Interest on Fund Balances
2004	21,977	5.90%	113,565	372,613	1,300	
2005	24,430	6.20%	96,465	393,892	991	731
2006	27,415	6.36%	96,441	430,733	1,346	957
2007	30,817	6.68%	95,956	461,533	1,483	1,174
2008	34,611	6.91%	97,819	500,557	1,530	1,403
2009	38,795	7.01%	100,861	553,100	1,563	1,650
2010	43,414	7.13%	106,125	608,504	1,612	1,919
2011	48,523	7.27%	113,237	666,997	1,711	2,214

^aAll values are as of the end of each fiscal year.